



8	7	6	5	4	3	2	1		
MS NETWORK CAPABILITY IEI								OCTET 1	
LENGTH OF MS NETWORK CAPABILITY CONTENTS								OCTET 2	
MS NETWORK CAPABILITY VALUE								OCTET 3-10	

MS CAPABILITY INFORMATION ELEMENT (IE)

### FIG. 3

```
<MS network capability value part> ::=
      <GEA1 bits>
      <SM capabilities via dedicated channels: bit>
      <SM capabilities via GPRS channels: bit>
        <UCS2 support: bit>
      <SS Screening Indicator: bit string(2)>
      <SoLSA Capability : bit>
      <Revision level indicator: bit>
      <PFC feature mode: bit>
      <Extended GEA bits>
      < LCS VA capability: bit >
      <WLAN Capability; bit>
      <Spare bits>;
<GEA1 bits> ::= < GEA/1 :bit>;
LCS VA capability (LCS value added location request notification capability)
      OLCS value added location request notification capability not supported
      1LCS value added location request notification capability supported
WLAN capability:
      0 WLAN capability not supported
      1 WLAN capability supported
```

## **NETWORK CAPABILITY IE**

- EXISTING
- **MS NETWORK CAPABILITY VALUE**

[24.008] :=<GEA1 BITS>

- 1. <SM CAPABILITIES VIA DEDICATED CHANNELS: BIT>
- 2. <SM CAPABILITIES VIA GPRS

CHANNELS: BIT>

- 3. <UCS2 SUPPORT: BIT>
- 4. <SS SCREENING INDICATOR: BIT STRING(2)>
- 5. <SoLSA CAPABILITY: BIT>
- 6. <REVISION LEVEL INDICATOR: BIT>
- 7. <PFC FEATURE MODE: BIT>
- 8. <EXTENDED GEA BITS>
- 9. <LCS VA CAPABILITY: BIT>
- 10.<SPARE BITS>;

- NEW
- MS NETWORK CAPABILITY VALUE

[24.008] :=<GEA1 BITS>

- 1. <SM CAPABILITIES VIA DEDICATED CHANNELS: BIT>
- 2. <SM CAPABILITIES VIA GPRS CHANNELS: BIT>
- 4. <SMS CAPABILITY VIA WLAN: BITS
- 5. <SMS (TEXT ONLY, TEXT & ANIMATION), IMS, MMS, ETC.>
- 6. <UCS2 SUPPORT: BIT>
- 7. <SS SCREENING INDICATOR: BIT STRING(2)>
- 8. <SoLSA CAPABILITY: BIT>
- 9. <REVISION LEVEL INDICATOR: BIT>

FIG. 4

# RADIO ACCESS CAPABILITY IE

• NEW

- EXISTING
- MS RA CAPABILITY

VALUE PART:= [24.008]

- 1. <ACCESS TECHNOLOGY TYPE>
- 2. <ACCESS CAPABILITIES: BIT>
- 3. <UMTS FDD RADIO ACCESS TECHNOLOGY CAPABILITY : BIT>
- 4. <UMTS 3.84 Mcps TDD RADIO ACCESS TECHNOLOGY CAPABILITY: BIT>
- 5. < CDMA 2000 RADIO ACCESS TECHNOLOGY CAPABILITY: BIT>
- 6. <UMTS 1.28 Mcps TDD RADIO ACCESS TECHNOLOGY CAPABILITY : BIT>

MS RA CAPABILITY VALUE

PART:= [24.008]

- 1. <ACCESS TECHNOLOGY TYPE>
- 2. <ACCESS CAPABILITIES : BIT>
- 3. <UMTS FDD RADIO ACCESS TECHNOLOGY CAPABILITY: BIT>
- 4. <UMTS 3.84 Mcps TDD
   RADIO ACCESS TECHNOLOGY
   CAPABILITY : BIT>
- 5. < WLAN RADIO ACCESS
  CAPABILITY: TERMINAL TYPE (PDA,
  LAPTOP, PHONE), MEMORY SIZE,
  SCREEN SIZE, PROCESSING POWER,
  TECHNOLOGY VERSION (802.11,
  802.15, 802.16,...ETC.), SERVICE
  PROFILE (SMS (TEXT ONLY,
  TEXT & ANIMATION)), MMS, IMS,
  LOCATION, MBMS,...ETC.>

## FIG. 5A FIG. 5A1

```
-- length in bits of list of Additional access technologies
                                                                                                                                                                                                                                                                                                                                                                                                                                              { 1 < Additional access technologies: < Additional access technologies struct >> } ** 0 < spare bits>** } }
                                                                                                                                                                                                                                                                                                              - structure adding Access
                                                                                                                           <MS RA capability value part struct >::= --recursive structure allows any number of Access technologies
                                                                                                                                                                                                                 < Access capabilities: <Access capabilities struct>> }
                                                                                                                                                                        < Access Technology Type: bit (4) > exclude 1111
                                                                                                                                                                                                                                                                                                    < Access Technology Type: bit (4) == 1111 >
<MS RA capability value part: < MS RA capability value part struct >>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             < Length: bit (7) > - length in bits of Content and spare bits
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           - available for future enhancements
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     spare bits>**; -- expands to the indicated length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       { 0 | 1 < MS RA capability value part struct> };
                                          <spare bits>**; -- available for future enhancements
                                                                                                                                                                                                                                                                                                                                                                                          < Length : bit (7) >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  < Access Technology Type: bit (4) >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        < Additional access technologies struct > ::=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <Access capabilities : <Content>>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        < GMSK Power Class: bit (3) >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <8PSK Power Class : bit (2) > ;
                                                                                                                                                                                                                                                                                                                                             technologies with same capabilities
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         < Access capabilities struct > ::=
                                                                                                                                                                                                                                                                                                                                                                                                                                and spare bits
```

FIG. 5A1

```
{ 0 | 1 < Multislot capability: Multislot capability struct > } -- zero means that the same values for multislot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -- 3G RAT
-- 3G RAT
                                                                                                                                                                                                                                                                                                                                                                                                                                   [0]1 < 8PSK Power Capability: bit(2) > } -- 'I' also means &PSK modulation capability in the uplink.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -- 3G RAT
                                                                               -- zero means that the same values apply for parameters as in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         - 3G RAT
                                                                                                                                                                                                                                                                                                                                                   parameters as given in an earlier Access capabilities sield within this IE apply also here
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            < 8-PSK_MULTISLOT_POWER_PROFILE : bit (2) > );
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     < Extended DTM EGPRS Multi Slot Class; bit(2) >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      < UMTS 3.84 Mcps TDD Radio Access Technology Capability: bit >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              < UMTS 1.28 Mcps TDD Radio Access Technology Capability: bit >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     < GMSK_MULTISLOT_POWER_PROFILE: bit (2) >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      < COMPACT Interference Measurement Capability: bit >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <WLAN 802.xx Radio Access Technology Capability: bit(3)>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                < CDMA 2000 Radio Access Technology Capability : bit >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 < UMTS FDD Radio Access Technology Capability : bit >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [0] 1 < Extended DTM GPRS Multi Slot Class: bit(2) >
                                                                                                                  immediately preceding Access capabilities field within this IE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        < Modulation based multislot class support : bit >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          { 0 | 1 < High Multislot Capability: bit(2) > }
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             < GERAN In Mode Capability: bit >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     < GERAN Feature Package 1: bit >
                                   < RF Power Capability: bit (3) >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              < Revision Level Indicator: bit>
                                                                          { 0 | 1 < A5 bits : < A5 bits >
                                                                                                                                                   < ES IND : bit >
                                                                                                                                                                                                                                                                                                                                                                                             - Additions in release 99
                                                                                                                                                                                                                                   < VGCS: bit >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -- Additions in release 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -- Additions in release 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    - Additions in release 6
                                                                                                                                                                                                                                                                        < VBS: bit >
                                                                                                                                                                                           < PS: bit >
< Content > ::=
```

### FIG. 5A2

DEM	CODE MULLIPETA OF TA COLUMN CONTROL					
This	GPRS Multi Slot Class (2 bit field)					
Inis	field indicates the DTM GPRS multislot capabilities of the MS. It is coded as follows:					
Bits						
2 1						
0 0	Unused. If received, the network shall interpret this as '01'					
0 1	Multislot class 5 supported					
10	Multislot class 9 supported					
11 1	Multislot class 11 supported					
	•					
UMT	S FDD Radio Access Technology Capability (1 bit field)					
Bit						
0	UMTS FDD not supported					
1	UMTS FDD supported					
1						
UMT	S 3.84 Mcps TDD Radio Access Technology Capability (1 bit field)					
Bit	(					
0	UMTS 3.84 Mcps TDD not supported					
1	UMTS 3.84 Mcps TDD supported					
CDM	A 2000 Radio Access Technology Capability (1 bit field)					
Bit	The state of the s					
0	CDMA 2000 not supported					
1	CDMA 2000 supported					
1	astin testo oupportou					
UMTS	S 1.28 Mcps TDD Radio Access Technology Capability (1 bit field)					
Bit	the map is a reason reason to a more graph and the more more and the m					
0	UMTS 1.28 Mcps TDD not supported					
1	UMTS 1.28 Mcps TDD supported					
]	OWITO TIZE Mobe 100 Supported					
WLA	N 802 Radio Access Technology Capability (3 bit field)					
Bits	- SSE THAT TO GOOD TO MITOTO GY CAPADITY (S DICTION)					
000	WLAN 802.xx not supported					
001						
010						
011	WLAN 802.16 supported					
<u>  0.1.1</u>	VLAN.002. To supported					
1						
GEDA	M Eastura Package 4 /4 hit field					
GERAN Feature Package 1 (1 bit field)						
This field indicates whether the MS supports the GERAN Feature Package 1 (see 3GPP TS 44,060).						
III IS CO	öded as follows:					
	OFFICE AND A STATE OF THE STATE					
0	GERAN feature package 1 not supported.					
1	GERAN feature package 1 supported.					